



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,554	03/28/2001	Xavier Ducloux	PF010030	8997
7590	11/05/2003		EXAMINER	
JOSEPH S. TRIPOLI THOMSON MULTIMEDIA LICENSING INC. 2 INDEPENDENCE WAY P.O. BOX 5312 PRINCETON, NJ 08543-5312			SENFI, BEHROOZ M	
			ART UNIT	PAPER NUMBER
			2613	
			DATE MAILED: 11/05/2003	8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/819,554	DUCLOUX ET AL.
	Examiner Behrooz Senfi	Art Unit 2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 August 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5 and 7-9 is/are rejected.
- 7) Claim(s) 6 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments (Paper no. 7, dated 22 August 2003) with respect to claims 1 and 7 have been fully considered but are moot in view of the new ground(s) of rejection.

Applicant amended ~~claims~~ claims 1, 7 and 8.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7 and 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US 6,573,945) in view of Mihara (US 6,229,849).

Regarding claim 1, Wu '945 discloses "an image (HDTV) split into panels" (i.e. fig. 1), and "an encoder being assigned to each panels" (i.e. fig. 1, 120 – 127). Although Wu '945 discloses Master controller (i.e. fig. 1, 160), that in fact is a rate controller (single/global), for controlling the compressors (fig. 1, 120 – 127). But fails to explicitly teach "VBV" as claimed. However, such features are well known and used as evidenced by Mihara '849 (i.e. abstract, fig. 4, controller 3, fig. 6, and col. 6, lines 5+). Therefore, taking the combined teaching of Wu '945 and Mihara '849 as a whole, it would have been obvious to modify the system of Wu '945 as taught by Mihara '849 to minimize the delay time (col. 2, lines 54).

Regarding claim 7, the limitations claimed are substantially similar to claim 1, therefore the grounds for rejecting claim 1, also apply here. The additional limitation "each encoder is coupled to another encoder " reads on (Wu; fig. 1, encoder 120 – 127).

Regarding claim 8, combination of Wu '945 and Mihara '849 teaches multiplexing bus linking the encoders (Wu, fig. 1, 130).

4. Claims 2 – 5 and 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu '945 in view of Mihara '849 as applied to claims 1 and 8 above and further in view of Blawat et al. (US 6,198,878).

Regarding claims 2 and 4, combination of Wu '945 and Mihara '849 teaches an Image (HDTV) split into panels" (i.e. fig. 1) and "an encoder being assigned to each panels" (i.e. fig. 1, 120 – 127) and "rate controller" (i.e. fig. 1, 160) and "VBV" (Mihara, abstract, fig. 4, controller 3, fig. 6, and col. 6, lines 5+). Combination of Wu '945 and Mihara '849 fails to teach "cost of coding". However, such features are well known and used as evidenced by Blawat '878 (i.e. col. 2, lines 25+). Therefore, taking the combined teaching of Wu '945 and Mihara '849 and Blawat '878 as a whole, it would have been obvious to modify the combination system of Wu '945 and Mihara '849 as taught by Blawat '878 to improve the coding quality (Blawat; col. 1, lines 28).

Regarding claims 5 and 9, the limitations claimed "preset bit rate for horizontal band is in part the preset bit rate for the complete image, dividing by the number of horizontal bands" would have been obvious, since that is the definition of known mathematical equation for finding average, and the "dynamic allocation of the preset bit

rate for the complete image depends on the complexity" reads on (Blawat: col. 2, lines 12, and Mihara; cols. 7 – 8, 64+).

Regarding claim 3, Official Notice: the limitation as claimed "coding cost is calculated on the basis of pre-analysis of the image" is well-known in the prior art of the record. See supporting reference Ducloux et al (US 6,148,107, col. 8, lines. 45+).

Allowable Subject Matter

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance:
The prior art of the record fails to anticipate nor rendered obvious the claimed limitation preset bit rate of a horizontal band is equal to: $D_i = (p x_i/x + (1-p) n/N) D$,

Where: D_i is the bit-rate of the horizontal band

D is the bit-rate for the global image

x_i is the complexity of the horizontal band

X is the total complexity of the image

N is the number of panels per horizontal band

n is the total number of panels in the image

p is the percentage of bit-rate assigned to dynamic allocation relative to the global bit-rate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

10/24/2003


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600